

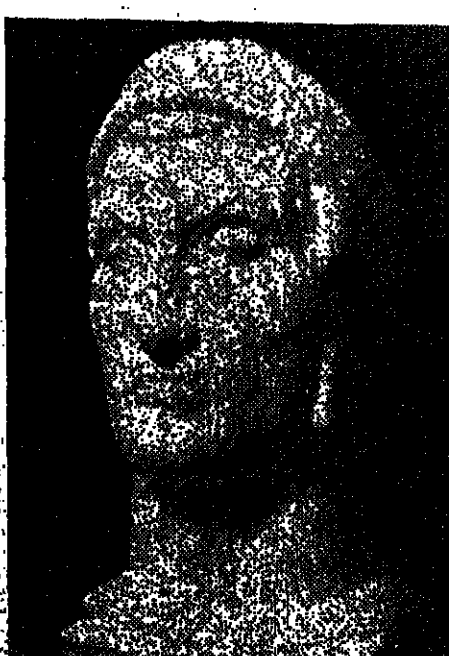
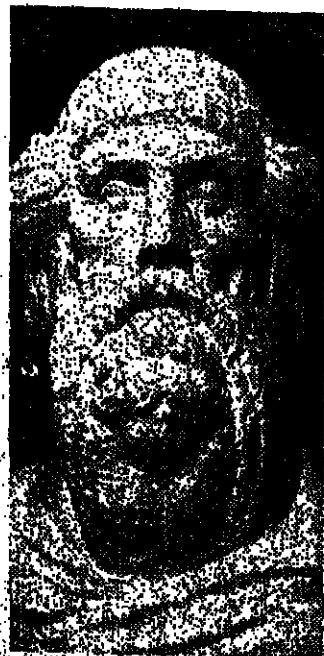


The photos show some of Oscar Han's sculptures: Nicolae Ibrăileanu (top); Constantin Brăncușu, the ching (left); Runner (right); Homer, Dante (bottom)



Sculptor Oscar Han (1891-1970) was a member of certain modernist artistic groups, served as a teacher, exhibited in this country and abroad and is mainly known as the author of numerous monuments: Mihail Kogălniceanu and Constantin Brăncușu (Bucharest Victory, Mădăraș), Mihail Eminescu (Constanța and Oradea), Anghel Săbănuș (Constanța), Mircea the Old (Turnu Măgurele), Michael the Brave (Alba Iulia), etc. There were two tendencies that remained characteristic of his sculpture throughout his career. On the one hand, a propensity for the impressionistic-realistic treatment of the subject, with almost naturalistic modelling preoccupations sometimes. On the other hand, an aspiration after over-simplification and excessive stylization, meant to lead to a representation of the motive in its typical, ideal forms. What may surprise in this bipolarity is the fact that the simplification and typification aimed at are achieved within the broader framework of an impressionistic-realistic vision. The artist never completely gives up the pictorial modelling device of an impressionistic nature, primarily manifest in his early works, such as the Gurnet Thrower, where indications of anti-classicist stylization already appear. He does not reach an abstract essentialization of forms. His models are always real, and their artistic representation is not clad in immutable impersonal forms, beyond their concrete particularity. His typicalness is always individual. As a matter of fact, the technical means to which he resorts continually maintain him within the limits of a realistic vision. His portraits or compositions tend towards a symbolization that should unequivocally recall the original reference point. Bourdelle was to him an exemplary model in this respect, a model which watched not only over his debut, in his maturity, in the interwar period, his work was dominated by an inclination towards typification and symbolism. He created in that period a number of bas-reliefs such as those at the National Theatre: Aeschylus, Sophocles, Dante, Eminescu Păruș, Iorga, compositions — Eden, The First Kiss, Chimera, characterized by mythic sobriety, by the simplification and stylized reduction of natural forms. In the more recent period of his evolution, while he did not forgo his inclination towards typification and symbolism, one can notice a return to certain impressionistic-realistic devices, with a naturalistic concern for the minutiae of details, recalling the early phase of his career.

DAN BARBU ■



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# ROMANIAN NEWS

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## CONTINUAL GROWTH

In a period when numerous countries have drastically reduced their investments, with obvious consequences on economic growth, Romania has remained consistent with its policy of equipping and re-equipping the national economy with modern enterprises and installations, creating a powerful network of scientific and cultural institutions, a solid infrastructure, systematically extending social constructions.

The amplitude of the Romanian investment effort has been visible throughout the quinquennium, while the country's economic force has grown, especially after 1965, when almost a third of the national revenue was consistently reserved for the development fund. Thus, while the total volume of investments was in 1950, of only 4.3 billion lei, and in the first three five-year plan periods of some 362 billion lei, over the 1966-1975 decade it grew to some 880 billion lei in order to reach 994 billion lei (considered at the same prices as in the previous quinquennium) or 1,171 billion lei at the level of prices in 1965 in the 1981-1985 five-year plan period.

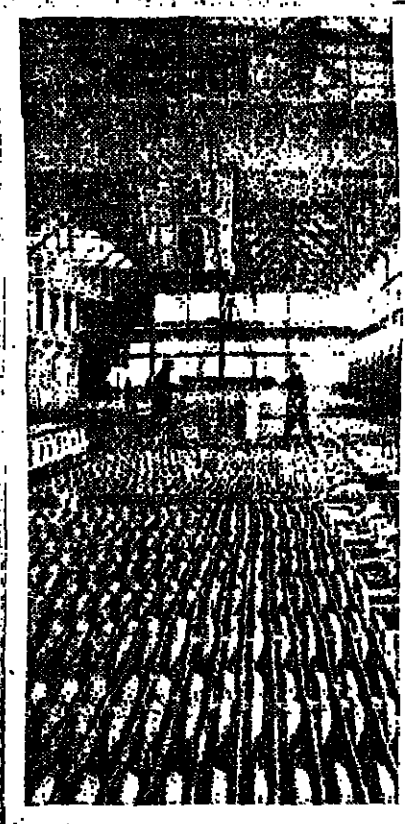
This is therefore, the explanation of the powerful equipping of the national economy with productive fixed assets and of social interest. 9,000 main production and infrastructure units were commissioned over 1966-1985, thousands and thousands other industrial capacities were re-equipped and modernized.

Big investments were also made in agriculture. In the past quinquennium (1981-1985) they were twice larger than the volume achieved during 1951-1965. At the end of 1987, the total irrigated area was more than three million hectares, the equivalent of 30 percent of the country's arable land.

The investment effort allowed the creation, in the last 35 years, of 5.5 million new jobs, of which 3.35 million after 1965. At the same time, 357 thousand apartments were built over 1966-1986. Here are only two of the coordinates reflecting the ample echoes of the Romanian investment policy on the growth of the population's quality of life. Romania continues its substantial investment policy. In the present five-year plan period (1986-1990) the carrying out is foreseen of a programme of capital constructions totalling 1,400 billion lei. Over 840 billion lei of the total amount are allotted to industry and are meant especially for the power and extractive industries. In the processing industry, investments are especially directed toward completing the objectives begun in the last quinquennium and the modernization of the existing ones. At the same time, agriculture benefits by 210 billion lei. In the on-going five-year plan period, 750,000 apartments will be built and 2.5 million inhabitants will move to new dwellings.

On the aggregate, some 900 important production units will be commissioned during this quinquennium, while in 1990 the fixed assets existing in the national economy will total 8,800 billion lei.

ION COVACI ■



## THE HIGH TEMPERATURE OF IDEAS

### A NEW METALLURGICAL CENTRE

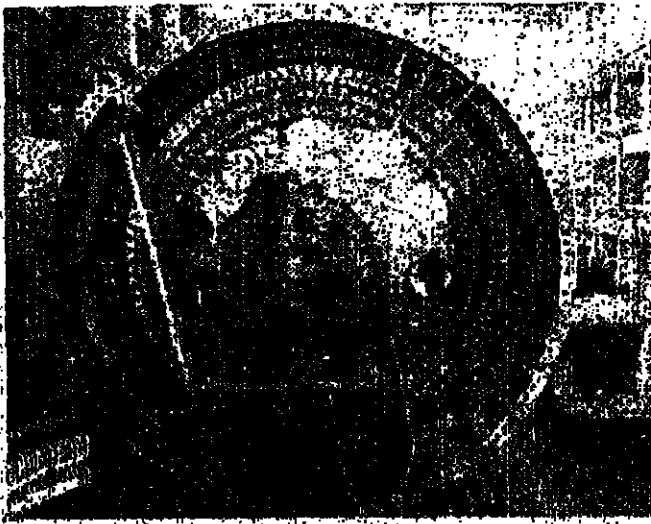
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## SIX AND PIX PROGRAMS

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## RECEPTION BY THE PRESIDENT OF THE REPUBLIC YASSER ARAFAT

Nicolae Ceausescu, General Secretary of the Romanian Communist Party, President of the Socialist Republic of Romania, met in Sinaia on Tuesday, March 22, with Yasser Arafat, Chairman of the Executive Committee of the Palestine Liberation Organization, who paid a visit to Romania.

During the interview, extensive opinions were exchanged on the latest developments in the Middle East.

In that framework, the PLO Executive Committee Chairman referred to the situation in the Middle East, to the efforts made by the PLO for the settlement of the Palestinian problem, to the role of the PLO in the establishment of peace in the area.

Referring to the RCP and Romania's principled, consistent stance on the Middle East, Nicolae Ceausescu underscored the need for action to find a global, just and lasting solution to the situation in the area, to establish a durable peace on the basis of Israel's withdrawal from the occupied Arab territories, the resolution of the Palestinian people's question by recognizing its right to self-determination,

to the creation of an independent Palestinian state, to the observance of the integrity, sovereignty and security of all the states in the area. It was pointed out that new initiatives and actions were needed to contribute to the settlement of Middle East issues.

The RCP General Secretary and the PLO Executive Committee Chairman highlighted the importance of the calling under UN aegis, of an international conference on Middle East issues to be attended by all the states concerned, including the PLO, the sole legitimate representative of the Palestinian people, Israel and Security Council permanent members.

During the talk, Nicolae Ceausescu and Yasser Arafat expressed deep concern over the Israeli authorities' intensified repressive actions in the occupied Arab territories in the West Bank and the Gaza strip against the Palestinian population that fights to defend its fundamental rights, to attain its legitimate aspirations. It was pointed out that an end should be put to those acts of repression which can seriously jeopardize the situation in the area, the cause of peace in the Middle East.

At the same time, the decision of the UN was disapproved and the need was underlined to reconsider that unilateral and discriminatory step, taking account of the fact that now more than ever before the Palestinian people should have a representative to take part in the world forum's efforts for a settlement of the Middle East situation and to the Palestinian question.

The same day in the afternoon Nicolae Ceausescu met Yasser Arafat, Chairman of the PLO Executive Committee.

Further opinions were exchanged on ways and means of settling the Middle East situation and the Palestinian issue, of establishing a just and lasting peace in that part of the world.

At the end of their talks, Nicolae Ceausescu and Yasser Arafat underscored the productive character of their dialogue and expressed their belief that it would contribute to the further development of the fine friendship between the RCP, Romania and the PLO, to the strengthening of solidarity between the Romanian and Palestinian peoples.

## ON THE DEATH SENTENCE OF SIX COLOURED YOUTHS IN THE REPUBLIC OF SOUTH AFRICA

### STATEMENT BY THE ROMANIAN NEWS AGENCY "AGERPRES"

The Romanian News Agency "AGERPRES" released a statement showing that public opinion in Romania has learned with profound indignation that a court in South Africa sentenced to death six young coloured people in the South African town of Sharpeville on unjust charges and without any evidence.

This sentence, the statement shows, is an odious crime committed by the Pretoria racist authorities against fundamental human rights and liberties, against the coloured population in South Africa.

The Romanian people resolutely demands the repeal of the death sentence of the six young

people in South Africa, their immediate release and an end to any reprisals of the South African authorities against the fighters for freedom and social justice in that country.

Central, mass and public organizations in Romania, components of the Socialist Democracy and Unity Front, addressed messages to the Secretary-General of the United Nations Organization, Javier Perez de Cuellar, in connection with the unjust death sentence of the six young coloured people in South Africa. The messages sent by the General Trade Union Confederation of Romania, the National Women's Council, the

Union of Communist Youth, the Union of Communist Students Associations of Romania, the Romanian League of Friendship with Peoples of Africa, etc., express energetic protest against the arbitrary decision of the South African government, a flagrant violation of the fundamental rights of man.

Vehemently stigmatizing the repressive measures of the Pretoria racist administration, the messages demand the repeal of the death sentence of the six coloured youths and their immediate release, which would fully meet the unanimous recognized norms of international law, fundamental human rights.

## ROMANIA IN THE WORLD

### GOLD FOR ROMANIAN PRODUCTS

Romania annually participates with official pavilions or stands of industrial products in scores of international trade fairs and exhibitions and various specialized events. Thanks to their high quality and technical level, many Romanian exhibits — a large number of which are new or updated products — have caught the attention of the international fairs of those fairs, being awarded gold medals and diplomas of honour.

At the autumn 1987 edition of the Leipzig International fair (September 6-12) the Romanian universal woodworking machine Divin 280 was given the gold medal. A creation of the specialists at the woodworking enterprise in Vatra Jorjani (a town in the north of Romania), the machine won the jury's favour thanks to its special technical performances, high efficiency and productivity. At the spring edition of the same fair (March 1987), another Romanian exhibit won the gold medal: the Schenck 12 sewing machine made by the firm machine-builders in Vatra Jorjani. Another exhibit also lying in the north of Romania, the machine displays a high efficiency (it sows and fertilizes the soil at the same time, and the sowing takes place in 15-18 rows per hour).

The electronic device with which the driver's cabin is fitted, by means of an acoustic and optical signalling system, ensures the control of the distribution of seeds in the soil, of the sowing, guaranteeing a high efficiency of the operation.

Other gold medals went to the universal caterpillar tractor SV-45 (manufactured at the Miercurea Ciuc enterprise), and

to a number of cosmetics (the Gerovital Plant cream, the RP cream made in Cluj-Napoca) at the international fairs in Plovdiv and Bratislava (INCEBA) respectively.

Dozens of other Romanian products in nearly all economic sectors — tractors, drilling installations and other oilfield equipment, minicomputers, lathes and other metal spinning

machine tools, optical data transmission systems, ARD terrain cars, various farm machinery, equipment for the light and food industries, and industrial and farm food consumer goods — have won gold medals at the fairs and exhibitions in Leipzig, Bonn, Plovdiv, Zagreb, Munich, Moscow, Tashkent, Algiers, Damascus and in other cities in Europe, Asia and America.

### POSITIVE DEVELOPMENTS IN THE STRUCTURE OF EXPORTS

At the end of 1987, the total volume of Romania's exports (evaluated at the current commercial exchange rates) reached over 177.7 billion lei, which was 2.7 per cent more than the level reached in the previous year and 2.8 times more than in 1985. The volume of imports was worth 123 billion lei, meeting the initially established figures.

In spite of the difficulties met with in 1987, which had been generated both by the non-fulfilment of the export plan and the restrictive and discriminatory practice used of in the international economic relations, Romania's activity in this field achieved results in a balance of trade surplus (in convertible currency) of over 2.5 billion dollars, thus ensuring the payment of an important share of the foreign debt.

The dynamics of Romanian exports was also due, among other things, to a positive evolution of its structure, by laying stress on deliveries of high processed products. Thus, while in 1985 the share of agricultural products and equipment in the total exports was 12.8 per cent, at the end of

1987, that share doubled, against the background of a substantial increase of exports. This share is close to similar achievements in some developed countries. While in the same year 1985 the share of imports in the same category of products was much higher than the exports (39.3 per cent), in 1987 the imports were 33.4 per cent covered by exports, as concerns machines and equipment, and five years later that figure exceeded 175 per cent.

Structural changes in deliveries to foreign countries were also recorded in other sectors too. The share of chemical products, chemical fertilizers and synthetic rubber accounts now for about a tenth of the total exports. Exports, as compared to 1985, now that total deliveries of chemical products have grown over 15 times during that time, while the share of agricultural products has fallen by 10 per cent.

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## MEETING OF THE EXECUTIVE POLITICAL COMMITTEE

During its March 18 meeting, the Executive Political Committee of the CC of the RCP was informed about the official goodwill visit President Nicolae Ceausescu and Elena Ceausescu paid to the Republic of Ghana, the Republic of Liberia, the Republic of Guinea and the Islamic Republic of Mauritania.

The Executive Political Committee stressed that, through their productive results, these visits went down as moments of greatest significance in the development of friendship, collaboration and solidarity with the respective countries, of the Romanian-African relations in general.

The Executive Political Committee emphasized the particular importance of the meetings and talks President Nicolae Ceausescu had with the leaders of the states visited, when the common wish was expressed to work to insure ever broader dimensions and an ever richer content to mutually advantageous cooperation. This determination is conspicuously expressed by the understanding contained by the documents signed, which open new prospects for the many-sided cooperation between Romania and the visited countries.

At the same time stress was laid on the significance of the exchanges of opinions President Nicolae Ceausescu had with the heads of the visited states on the evolution of the international situation which highlighted the identity or closeness of viewpoints on the major issues confronting mankind.

The Executive Political Committee assessed as particularly important the determination of Romania and of the countries fully met to cooperate ever closer in the international arena, to participate actively in the efforts for a comprehensive solution to the complex problems of our time, to tirelessly militate for the achievement of disarmament, nuclear disarmament first and foremost, for a pacific settlement of the conflicts in various parts of the world, for the establishment of a climate of détente, security, confidence and cooperation in Europe, in Africa and throughout the world, for the democratization of international life and the guaranteeing of every nation's right to a free, independent and dignified existence, to life and peace.

The attention was stressed which Romania and the visited states pay to the liquidation of underdevelopment and the establishment of a new international economic order, to an equitable solution to the foreign debt problem, as they declare for the selling of an international conference in this respect, under UN aegis, to be attended by both the developing and the developed countries.

The Executive Political Committee assessed the reiteration during the talks of the solidarity of Romania and of the countries visited with the fight of the African peoples for the complete abolition of any form of colonialism for the consolidation of national independence for a free, self-reliant development, for economic and social progress. Working in this spirit, they back the just fight for national liberation of the Namibian people, led by SWAPO, its sole legitimate representative, for Namibia's independence. Likewise, they firmly condemn South Africa's acts of aggression against the Republic of Angola, as well as the racist policy of apartheid and the repressive majorities black population.

Emphasis was placed on the importance of the conclusion reached during the top-level dialogues on the need for an

enhanced role of the Organization of African Unity in the development of the cooperation among the states on that continent, in the settlement of the problems confronting it.

Unanimously approving the results of the visits, the documents signed, the Executive Political Committee requested the government, the ministries, the other central bodies to undertake all measures required for the implementation of the understandings set in the best conditions.

The Executive Political Committee debated a report on a balance-sheet analysis of the results obtained in the national economy as a whole, and the formation and utilization of the financial resources in 1987. The report points to the outstanding achievements scored in the intensive development and modernization of industry, and highlights that the biggest real production in the country's history was obtained in 1987. Special achievements were scored in the other economic sectors, as well as in education, health care and culture.

The national income grew and, on this basis, the people's material and spiritual welfare rose. All this has been positively on the financial situation of the country, the necessary resources being thus provided for an appropriate financing of projects, the maintenance of a budgetary and financial balance, a healthy money circulation and the firm application of the price stability policy.

All ministries were assigned the task to work out programmes of measures in two weeks time, which should provide for the realization of the income and growth envisaged in the budget, higher profitability of all enterprises so that by the end of the first half of this year there should be no industrial or agricultural unit to work with a deficit.

The Executive Political Committee examined and approved a report on the working plan of the state economy for 1987. Following the results obtained last year, the profit-sharing fund in the state economy is larger than in 1986. It is established that the working plan for 1987 is more realistic and that the working collective of the rolling mill, although being made up of

young people from Mehedinti, clustered around a small nucleus of experienced workers and foremen having worked in various rolling mills in this country, masters all the tricks of the trade.

Designed by specialists of the IPROAST Institute of Rolling Mills Designs in Bucharest, the metallurgical enterprise in Drobeta-Turnu Severin is meant for an annual physical production of 150,000 tons of small and medium-sized section bars: the present capacity allows of turning out some 25,000 tons of rolled steel per year.

The main furnace equipment — built by the metallurgical enterprise in Alud has a capacity of 110 tons of finished goods per hour, being the largest in this country's industry. The horizontally or vertically laid roll stands make it possible to work simultaneously on two threads, thus achieving a high productivity in obtaining small-section rolled steel. The other machines and equipment were manufactured by the enterprise of Craiova and Electroalema enterprise of Bucharest.

## THE HIGH TEMPERATURE OF IDEAS

Although 100 years old (the first charge was in 1881) the Hunedoara Iron and Steel Plant holds a top position in the hierarchy of the Romanian iron and steel industry, in competition with the new, modern plants of Galati, Calarasi, Tirgoviste. Almost all industrial branches need Hunedoara's products from rolled sections and steels to castings of pig iron and steel.

The plant's working collective tries to be up-to-date with all technical-scientific novelties in this field of activity.

Within the plant there is a modern research unit — the Research and Design Unit for Iron and Steel Products interested in the permanent promotion of technical progress.

Answering the priority task of the iron and steel plant of producing more steel of a better quality and with reduced production costs, the main production of the research centre specialists is naturally to elaborate new technologies ensuring the diversification of the range of steels and types of rolled sheet. The share of nonconventional technologies like vacuum treatment, the barblage of fluid steel and the production of high purity steels with low

slag. Now the specialists of the Computer Centre work at the control of distribution and consumption of main energy agents (electric power, methane gas, coke and furnace gas, water, steam, oxygen). Measuring installations have been mounted on the control of all functioning in 150 spots. In the end there will be 1,000 such spots.

This year, an installation automatically following the circuit of scumblash from the oven to the final form of billet, will be functioning at the Blowing 1300 mill (where the whole process was automatized a few years ago).

The computer control of metal's heating process is under tests at one of the ovens. Thus an optimum heating regime will be ensured. Soon, when all tests will be concluded, the computer technology will be generalized to all rolling mill ovens.

Also a new furnace equipped with a processing computer which will ensure the automatic control of all functioning parameters is under construction. In future, after going through general replying, all furnaces in the plant will be equipped with such computers.



Views from the Hunedoara Iron and Steel Plant: the computer centre (top); the mill of the low profile roll mill (left); a new steel charge (bottom).

gas content (in whose metal bath advanced decarburizations and desulphurations can be effected, a thing which would not be possible by means of classic technologies).

Another priority problem is lowering the coke consumption in elaborating pig iron and the partial replacement with autochthonous coal dust. At present, inferior fuel, resulting from coking is introduced in the blast furnace.

Soon, an installation for blowing pulverulent material in the metal bath (carbon for carburization, sulphur, removing materials for desulphurations, etc.) will be introduced in the plant. This new technology shortens the steel's elaboration speed and reduces the consumption of expensive or hard-to-get alloy elements.

Recently, the problem was solved of controlled metal cooling in continuous rolling mills, a technology improving physical-mechanical characteristics and ensuring an important growth of the finished product's structural homogeneity.

Important results were also obtained in the extension of computer technology in the plant's works, especially in the steel's elaboration and process-



## A NEW METALLURGICAL ENTERPRISE

At the beginning of last December the first charges of steel came out of the small and medium section steel rolling mill in Drobeta-Turnu Severin.

Brought to the state of readiness in the pusher-type heating furnace (a unique in the national industry), the square-section billets having arrived here from the iron-and-steel works in Ilesba, Tirgoviste and Hunedoara are sent to the roll stands of the preparing, then intermediary and eventually by drafting system. In the end, the raw material is turned into steel bars of various sections, in keeping with the end-users' requests.

Standing by the special non-destructive control installation — the "climax" of the technological process — engineer Ion Nifol, the director of the new enterprise, declared himself satisfied. "The first charge, in which we turned out round-section steel bars with the diameter of 30 mm (we started with the easiest ones) has confirmed that the installation's equipping our enterprise in Drobeta-Turnu Severin, the working collective of the rolling mill, although being made up of

young people from Mehedinti, clustered around a small nucleus of experienced workers and foremen having worked in various rolling mills in this country, masters all the tricks of the trade."

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The main furnace equipment — built by the metallurgical enterprise in Alud has a capacity of 110 tons of finished goods per hour, being the largest in this country's industry. The horizontally or vertically laid roll stands make it possible to work simultaneously on two threads, thus achieving a high productivity in obtaining small-section rolled steel. The other machines and equipment were manufactured by the enterprise of Craiova and Electroalema enterprise of Bucharest.

The new enterprise will manufacture a wide range of products: full round finished rolled steel with diameters varying between 12 and 40 mm, round-ribbed steel (16 to 82 mm), equal-angle steel bars with sizes varying between 20 and 50 mm, steel in rectangular bars 20-50 mm wide and 3-5 mm thick, thus rounding off the

range of steel goods turned out by similar rolling mills, yet having a smaller capacity, of Focșani, Tirgoviste and Hunedoara. The metallurgical enterprise rounds off the industrial activity of Drobeta-Turnu Severin metallurgically and mechanically, a county which in the last two decades, in the complex process of socialist industrialization, of harmonious development of the production forces in all the country's areas, has become an important producer of hydro and thermal power, of coal, copper, precious and non-ferrous metals, of oil, gas, river and sea-ports, ships, passenger and freight cars, measuring and control apparatus, wood products, pulp and paper, plastic tyre covers, fabrics and textile garments. Its current industrial potential allows of obtaining in barely three days the production turned out here four decades ago and in 43 days that obtained in 1955. And its industrial ascent has not stopped. Now in a final stage is the construction of the first plants of a powerful chemical works: new units are being mounted at the electric and thermal-power central, and so on.

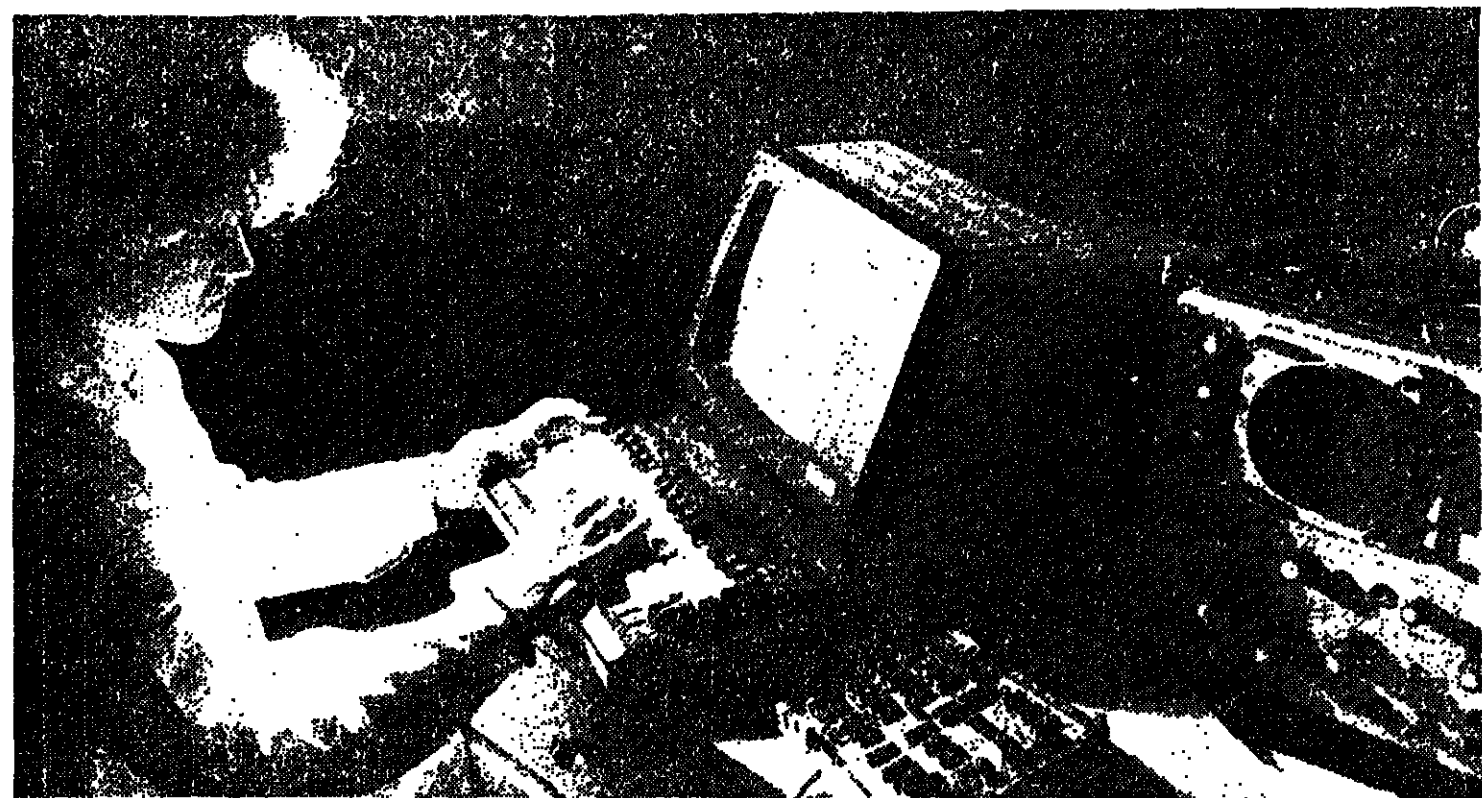
The second technological line at the metallurgical enterprise. At Ostrovul Mare, the foundations are being laid for the aluminium plant. The construction of the iron dam on the Romanian dam of the Iron Gates II hydropower and navigation system. At Baita de Arama, new copper deposits are being explored, while the young coalfield of Mehedinti is expanding to the Hunedoara, Frunzisor and Livezile areas.

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MARIN COANDA





## SIX AND PIX PROGRAMS

We asked eng. Andrei Neoula, scientific researcher at ICRIT-TCI, to present some of their valuable software product achievements for design in the electronics industry, products enjoying a real interest among foreign partners.

"PIX" program packages for the design of printed circuit boards and SIX packages for drawing logical circuits offer an efficient solution for automation in an important field of electronic design. Using a graphic display for interaction, PIX and SIX program packages offer both automatic means and interactive facilities, improving design work and leading to superior results.

"As the complexity and demand of printed circuits grows in a spectacular way, the fact has become obvious that their designers need instruments which should improve the efficiency and precision of work. This instrument, the computer, can compare in a short time, thousands of possibilities while man can orient actively in the most advantageous directions. The design of printed circuit boards includes two essential stages: 1) establishing the position of electronic components on the board; 2) setting up electric connections among parts. The solution offered by the PIX program package is similar for the two design stages. The first

stage uses an automatic method solving the largest part of the problem. The results are displayed on the screen of an interactive graphic system. Then the designer comes in, solving the special situations which have not been sufficiently well dealt with by the automatic method. The final solution is always superior to those obtained through the traditional method, without the use of the computer.

After finishing the design, the whole execution documentation is automatically generated by the system. Block tapes are generated for each layer, inscription mask, boring tape for the digitally controlled boring machine, etc. The system guarantees that, if the input data are correct, the output data correspond too. It is impossible for example to alter the connection list or to forget the placement of a part. The system's efficiency depends upon factors like the equipment's reliability and quality. We could say that in most cases, the productivity increases is at least 50 percent. This fact is very important in the electronics industry, where the designed installations wear imposes a very short design-fabrication cycle.



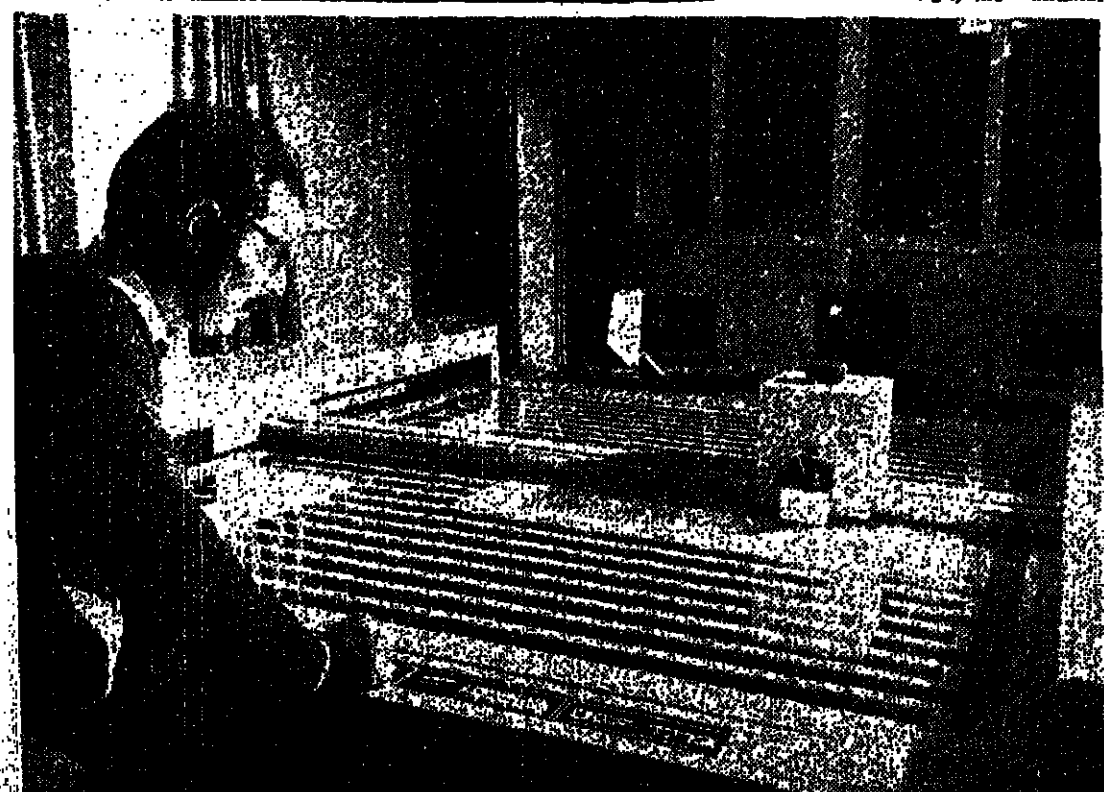
## ARCHITECTURE AT THE HIGH-TECH HOUR

We asked Claudia Ionescu, senior researcher within ICRIT-TCI to tell us about a valuable achievement in the field of architectural design, the Bulldar

Interactive graphic system.

"The study of architectural ensembles combines the individual analysis of construction in point of form, orientation, lighting, with the analysis of constructive complexes introducing also criteria resulting from the buildings' relative positions. The automation of these methods reduces the design effort in the stage of creating the system, thus organized to ensure a data handling corresponding to the new flow; data analysis and the generation of hierarchical subproblems; the allocation of areas and the evaluation of configurations; the design of architectural plans; perspective and elevation view. The elaboration of a rapid design method which should have

at its disposal a mathematical model representing the performance of the system, and allow the execution of a large number of calculations and the representation of data complexes is a very important element in this respect, the transformation is important of the design process in one of algorithmic nature and the introduction of interactive methods. The Bulldar interactive graphic system has a set of complex graphic functions for plane and three-dimensional space work, representations of complex bodies, the elimination of hidden lines, colouring, shading, the construction analysis from various points of view, the suppression of several bodies with the seen parts, the introduction of architectural details, integrating the computer design modules in building town planning and construction.

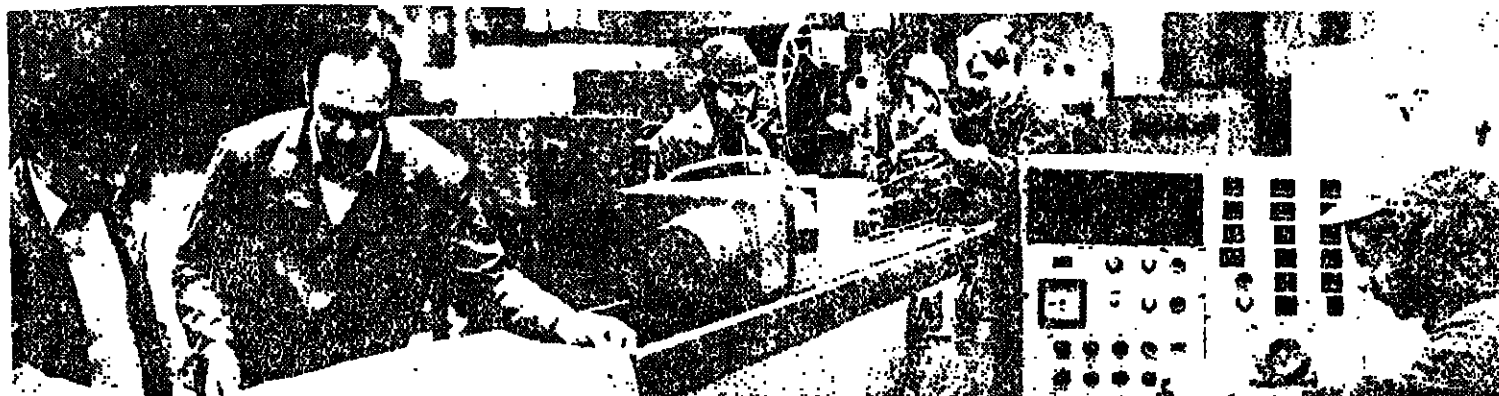


## AUTOMATIZED MEDICAL CHART

The Institute of Computer Technology and Informatics made, in collaboration with the town hospital in Botoani, a computer system storing the patients' medical data. The system called MEDAT ensures the medical staff the possibility to obtain complex and exact information on the present health of patients. It offers multiple clinical and laboratory data in automated charts thus ensuring a higher accuracy in consulting, diagnosis and prescribing the adequate treatment.

## OPTICS IN INFORMATICS

The use of optical devices in informatics instead of electronic parts considerably increases the speed of data transmission and processing as well as minimizing possibilities. Attracted by the top research domain, Sorin Tuleac, a fifth year student at the Physics Faculty elaborated, in collaboration with the laser section of the Institute of Physics and the Technology of Radiation Equipment, the work Optical Bistability in Polarization. The optical bistability obtained by him consists of a laser beam (He-Ne) between two polarized states with octagonal polarizers. Bistable elements can function as devices with optical memory, as transistors or optical amplifiers.



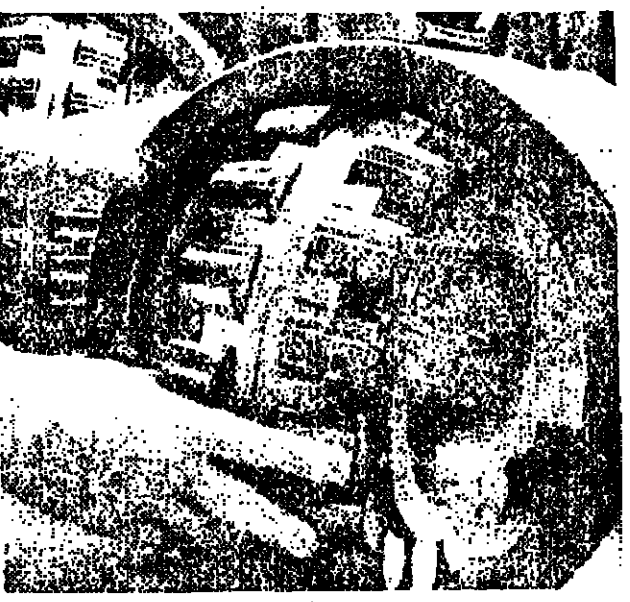
## MEDICAL INFORMATION SCIENCE

A new field in medical research is the comparison of various pathological cases with the normal ones. The system is controlled by a central unit - Diagram 200 - provided with a display system, with the possibility to store and automatically process all data obtained in an investigation and the emission of conclusions on human behaviour in the framework of the so-called nonverbal communication. The application field is broad: orthopedy, traumatology, pharmacology, neurology-psychiatry, medical recovery, pediatrics, geriatrics, periodical medical check-up, neural fitness programs, etc. The whole complex was the result of a research theme financed by the Academy of Medical Sciences.

Primary programs were established, serving to comparing various pathological cases with the normal ones. The system is controlled by a central unit - Diagram 200 - provided with a display system, with the possibility to store and automatically process all data obtained in an investigation and the emission of conclusions on human behaviour in the framework of the so-called nonverbal communication. The application field is broad: orthopedy, traumatology, pharmacology, neurology-psychiatry, medical recovery, pediatrics, geriatrics, periodical medical check-up, neural fitness programs, etc. The whole complex was the result of a research theme financed by the Academy of Medical Sciences.

## ELECTRONIC THERMOREGULATOR

The Enterprise of Measure and Control Apparatus in Vaslui has designed and built on the basis of technologies worked out by its specialists a new product with high technical and functional parameters: the electronic thermoregulator. A high-precision apparatus meant for air- or liquid-using installations in research, plant or medical labs. It is designed for maintaining constant temperatures ranging between 30°C below zero and 150°C above zero.



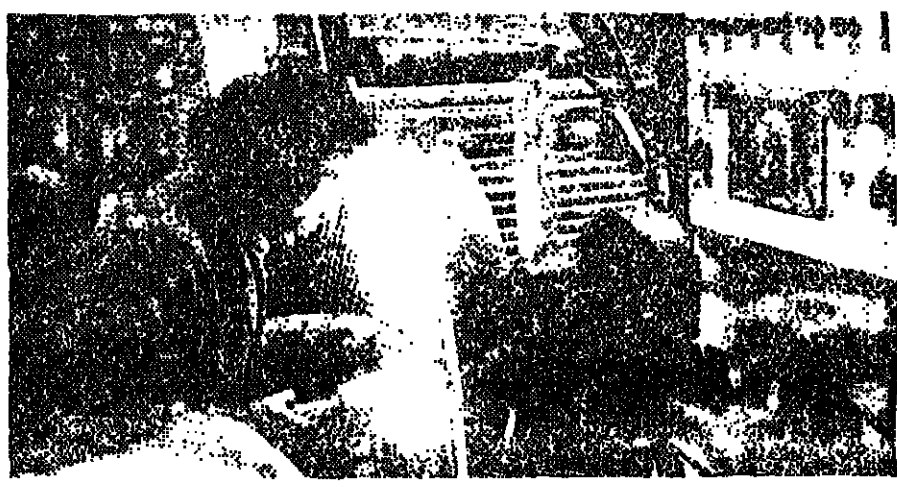
## SELF-ALIGNING ROLLER BEARINGS

Two new types of self-aligning roller bearings have rolled off the assembly lines of the Braila bearing enterprise these days. These high-tech products demanded by foreign partners, manufactured on the basis of original designs made by the unit's specialists, display superior static and dynamic qualities. In the period elapsed since the beginning of this year, over 30 new bearing types and constructional variants have been assimilated and put into production at this enterprise, in a wide range of sizes, intended for the machine building industry and other branches of the national economy, as well as export.

## A HIGHLY APPRECIATED TRADE MARK

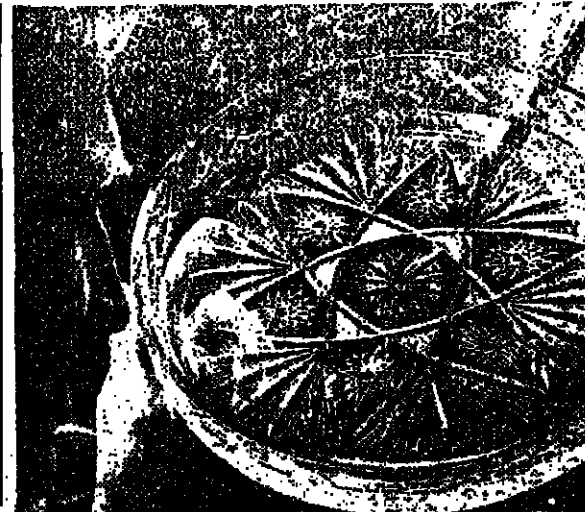
The equipment bearing the trademark Circo is highly appreciated on the foreign market for its high technical level and quality meeting the strictest international norms. The Grivita Rosic chemical equipment works in Bucharest fruitfully collaborates with leading firms of the international market.

Contributing to the high performance of the products were the modernization and automation of the fabrication flow. Thus, 85 per cent of the welding operations are carried on automatically. Photo: The section of equipment meant for the nuclear-electric plant.



## CRYSTAL BRILLIANCE

The Enterprise of Household Glassware in Bistrita municipality has set into operation the first pilot-line for chemically polishing the crystal items manufactured there. Built on the basis of Romanian designs, the station boasts a nearly eight-time larger production than the conventional method used before, while also providing a better finishing. The updating programme of the enterprise also includes the automation of temperature adjustment in glass melting and rebaking furnaces and the use of diamond discs in the engraving operations.



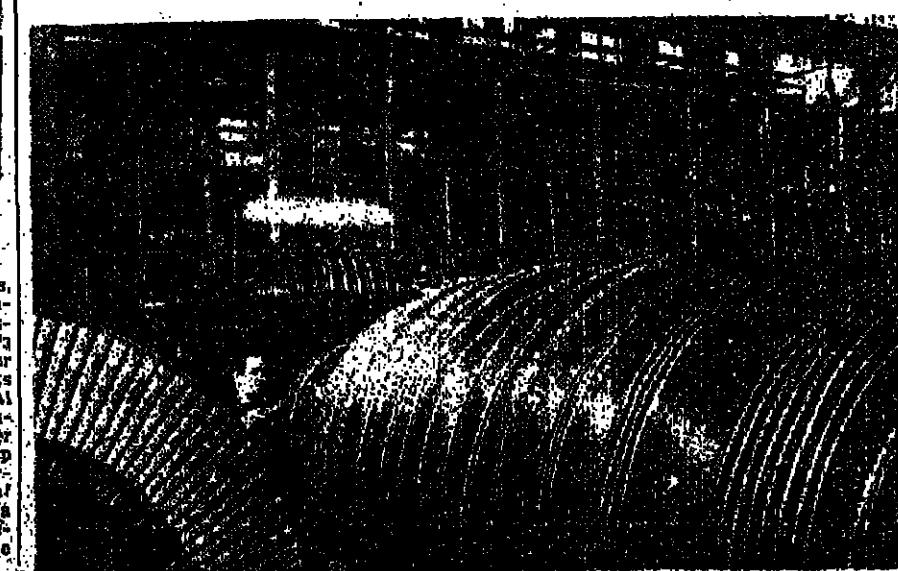
## VACCINES

Bromodin and Aerobin are two new vaccines developed at the Cantacuzino Institute in Bucharest, particularly efficient for increasing the bodily resistance of those who have suffered from viral infections, for preventing and treating chronic post-influenza infections and bacterial infections. The former vaccine is an injectable solution whose concentration is established according to the stage of the ailment. The other vaccine can be administered either in the form of insufflations or in the form of aerosols.

## THE UNIGUES — MANUFACTURING WORKS

An important complex unit — the Intermediate heat-exchanger — has recently gone into production at the Bucharest Heavy Machinery Enterprise. Also here, an important objective of the nuclear energy programme was completed at the beginning of this year: the first 100 MW generating unit for the nuclear-electric power plant at Cornavod.

The Bucharest works is the most modern of several industrial branches — it makes complex installations and equipment for the metallurgical, chemical, mining and building materials industries, and is engaged in carrying out most programmes of development of the national economy. Uniques or small-series equipment are manufactured here; some 30 per cent of the works' output is repaired or modernized annually.



## TOMORROW'S SAILORS

The future sailors attending the Gheorghe Marin High School have recently been offered modern conditions for professional instruction and general training. We are referring to a new complex of locksmithery, ship carpentry, electronics and seamanship workshops. Moreover, a new wing of the high school has been opened, which includes eight rooms for technical drawing, seamanship and physics laboratories. Also for these pupils, there is a new 330-seat canteen and a new 200-bed hospital. But the 200 future sailors slip on only excellent water training opportunities thanks to the modern motorboat Sirena polar, a 42-seat pontoon, a motor ferry, a cutter and seven boats making up the school's fleet, which serve to reveal the secrets of sailing. Adding to them is a rapid-escape department where top sportsmen are groomed.



## DRILLING INSTALLATIONS

Being meant for export for the most part, the drilling installations produced by the Oil Equipment Enterprise of Ploesti is turned out both in temperate and in cold climate (up to 50 degrees Celsius below zero) operational variants.

Recently the enterprise has homologated an installation for the centrifugal separation of oil substances from the drilling fluid. The design of the new installation belongs to the researchers of the Institute of scientific research and technological engineering for oil equipment in that town.



## AFFORESTATION DRIVE

A number of 6,000 ha have been afforested this spring, which amounts for 19 per cent of this year's plan provisions for this operation. Compared to previous years, larger areas are now afforested of excessively degraded and eroding land, on precipitous and ravines, unfit for agriculture, as well as along roads and water courses.

## MEDICAL TEXTILES

The specialists of the Textile Research Institute in Bucharest have created in collaboration with medical staff new textile materials for medical purposes. Mention-worthy among them are the wide range of surgical nets, rhinoplasty prostheses and sinus arthrodes, as well as surgical thread. The researchers of this institute are now concerned with achieving tendon and ligament fortifiers, successfully tested at the orthopaedic clinic of the municipal hospital in Bucharest.

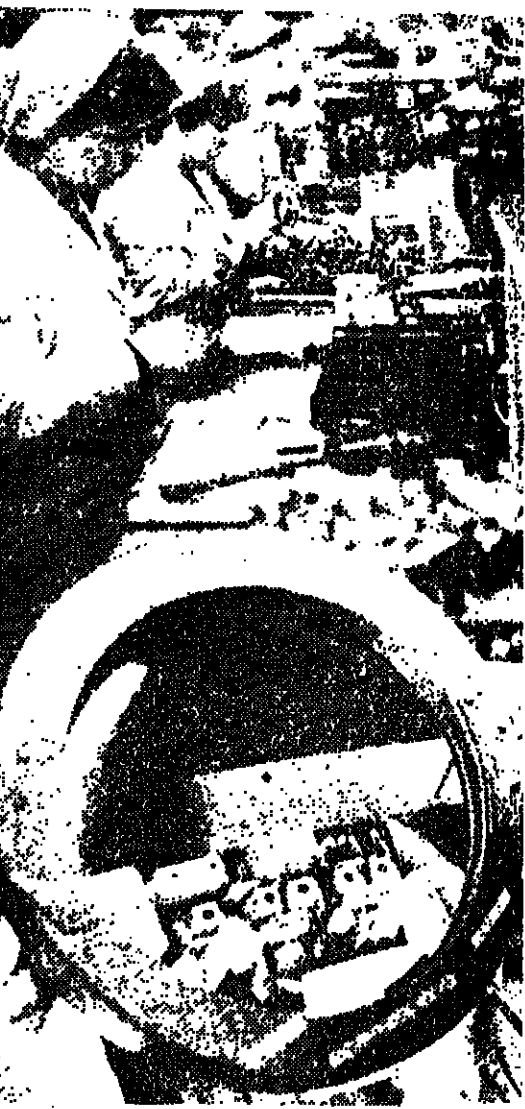
## A NEW YEAR FOR "TEHNOTON"

This year the Tehnoton enterprise of Iasi which puts out almost the entire production of radio-cassette and radio-cassette-players in Romania has introduced a large number of items in the production line.

Standing out among the novelties are the Club stationary radioreceiver, the Junior pocket radioreceiver, the AT-10 transistorized feeder and the apartment feeder.

This year will see also other apparatuses which are recent creations of the enterprise, standing out through their clear sonority and functional design: Duo, Solo 100, Iris, Gloria 3, Lira, Olympia, Terra, the Disco chain, the Allegro record player and others. Let us mention also the Noveltie radio-receiver (solicited by a Dutch firm) with three wave lengths.

In the photo: the overall radio set and radio-cassette-recorder assembly department.



## WOOD CIVILIZATION

Wood civilization in Romania has recently formed the object of researches at the Art History Institute in Bucharest. With a view to drawing up an inventory of Romanian wood architecture, a study was made of old houses, outbuildings, and peasant technology installations. The traditional dwellings, signalled, for instance, during the researches conducted in the Moldavia in Zarnesti, very much like those in other regions of the country, are eloquent proofs of the unity of peasant houses in their evolution, through their technical and decorative elements, through their typology of construction. The specificity of the traditional Romanian house is provided by the utilization of round beams, the sculptural elements of the girders, by other decorative motifs, and the four-slope roof. The study covered other civil architecture objectives, too, among which the two-storied wood house in the Buzau Valley, Alba county, which alongside those in Gorj county is one of the few traditional two-storied peasant houses.

## THE GREY OF BLAJ

...a new vine variety developed by the specialists of the Tree and Vine Growing Research and Production Station in Blaj, Alba county, is characterized by high productivity — over 16 tons of grapes per hectare — and by greater resistance to frost, diseases and pests. At present, the Grey of Blaj — so called after the silver colour of its grapes — is in the multiplication phase, and is due to be placed at the viticultural units' disposal soon.

## THE FINENESS OF PIPES

Regardless of the pipe diameters, which can vary between 1 mm — the thickness of a needle — and 400 mm (the product list includes 40,000 pipe types and sizes at the Republica Pipa-ir in Bucharest, for instance) everything is made with micron precision.

At present, which is why in the enterprise, first fabrication processes in a new modern workshop, equipped with the stainless steel technology which is piled here are being

## THE ROAD TO PERFORMANCE

With his scores of thousands kilometres covered on his bicycle, professor Vitalie Belonov might pose as a real champion. However, he is not a professional cyclist. He is a professional inventor.

In his case cyclism and inventiveness have many things in common. Not only metaphorical ones, because the professor likes to say that the road of an invention, from idea to its wide application in industry resembles a cycling race with its dazling ups and downs. Vitalie Belonov rides at least a few kilometres on his bike every day in order to fortify health and maintain an excellent physical condition.

But to him the bicycle represents first of all a large field of technical creation in which many things have yet to be invented. The bicycle is a vehicle of the future presently concerning thousands of inventors throughout the world. Under Vitalie Belonov's guidance the machine tools department of the Polytechnical Institute in Iasi have made intensive researches to the effect of improving bicycles, their mechanisms, of designing and bettering original engine-less driving mechanisms as well as installations driven by the feet's motive power.

The department has built more than 40 prototypes of vehicles (tested along 100,000 km by professor Belonov and one of his collaborators, and along 50—60,000 km by his students). Thus they created 20 inventions, now types of bicycles, highly efficient gears, a cycling car, engine-less drives for machine tools.

But we would narrow the sphere of the department's concerns if we confined ourselves to bicycles. Its method of dressing twist drills called by specialists the last dressing, which received the Golden Medal and the Special Diploma of the International Salon of Inventions held at Vienna in 1970, triggered a chain of 12 inventions ranging from technological devices to grinders. The ROMASTON system of continuous grinding tools, considered as one of the most profitable Romanian technical creations, includes more than 70 inventions (according to individual or collective designs) in the field of face, angle, counter, profile mills and broaches, etc.

Presently, professor Belonov holds 50 patents and 118 entries in the register of patents of the State Office of Inventions and Trade Marks. He won the first place at national invention salons for three times.

However, his name is related to a new discipline: inventiveness. He is the first Romanian to have lectured on inventiveness in a faculty, the author of the first course and handbook and the first in Romania to receive the title of Doctor in Inventiveness.

What is inventiveness (invention in Romanian)? Which are its effects on technical creation? Let the professor himself talk about it.

## A SMALL TREATISE ON INVENTIVENESS

Inventiveness lies at the confluence between physics, mathematics, philosophy, logic, psychology, sociology, economics, management, aesthetics, industrial law. The same as the engineering of value or creative design, it is mainly focused on combining the inventor's multilateral knowledge for obtaining highly functional and low-cost solutions in predetermined conditions.

Since a true technical creation has to be crowned by its broad capitalization, inventiveness is also the science and art of covering the road from the analysis and synthesis of the current stage of technology and the formulation of the creation theme to its introduction in the production line.

My contributions consist in shaping out and developing a multilateral practical and applied creative inventiveness. I had the great opportunity to study the creation process from the "inside", 20 years ago, when it began to interest me. I was already, so to say, an experienced inventor.

Nevertheless, I thought that the most important thing was not to create by yourself, but to mould engineers-inventors, namely those who produce original technical ideas. Throughout two decades I have undertaken a series of actions stimulating and guiding to performances as many students as possible. I started from the fact that for certain fields approached by higher technical education sub-



Students working in the factory workshop of the Machine Tool Department at Iasi Mechanics Faculty (top right); prof. eng. Vitalie Belonov in front of some of his inventions (centre); in the mounting hall of the Special Aggregate and Machine Tools Enterprise in Iasi where many inventions are materialized (bottom).

ject matters practically dealt with engineering analyses, cultivating only a reproductive type of technical intelligence. So, in the beginning I tried to overcome this shortfall, at least at the level of my discipline: the design of grinders. A real mini-school of inventiveness was set up within the machine tool department. I developed an analytical-deductive method called "The Method of Generalized Object" of this technology. The way in which graduation designs were drawn up was restructured entirely: after carrying through a reproductive model design students are divided into small creation groups with a view to discovering new solutions and to be patented. I habituated the potential inventors to thinking not only with their mind, but also with their hands. In the pilot workshop of the department, a factory-workshop, the students as through the whole range of engineering activities from the execution of original products patented by university staff, the technical personnel and their more advanced colleagues, to the design, construction, testing, homologation of prototypes and the pilot-micro-production.

So far, over 350 of my former and present students have become inventors. Many of them continue their activity of technical creation with the enterprises and institutions where they work now. They have asserted themselves as outstanding inventors, being now in charge of inventiveness groups.

I have managed to instill the passion for invention also into the university staff of the department: each of them has from five to 70 patents.

## A SCHOOL OF INVENTORS

Inventiveness has long exceeded the borders of the Faculty of Mechanics in Iasi. Lectures of inventiveness are now delivered also in other technical facilities of the Polytechnical Institute of Iasi. The Institute is now one of the most prolific "inventors" in Romania. Last year, it registered 200 inventions and received 151 patents for previously registered inventions. From among them 97 patents belong to the Faculty of Mechanics (60 were obtained by students).

Inventiveness courses, according to Belonov's method, have also been introduced in technical faculties of Brasov and Timisoara.

For a couple of years a post-graduation school of inventiveness has been functioning in Iasi, specializing in different fields of technical creation. The courses have been graduated by 11 classes enrolling 500 pupils.

are from Iasi and other counties of the country. The students choose or are given a creation theme which they have to solve within a year. They obtain the graduation diploma only after presenting the school management with a certificate attesting to the registration of the invention.

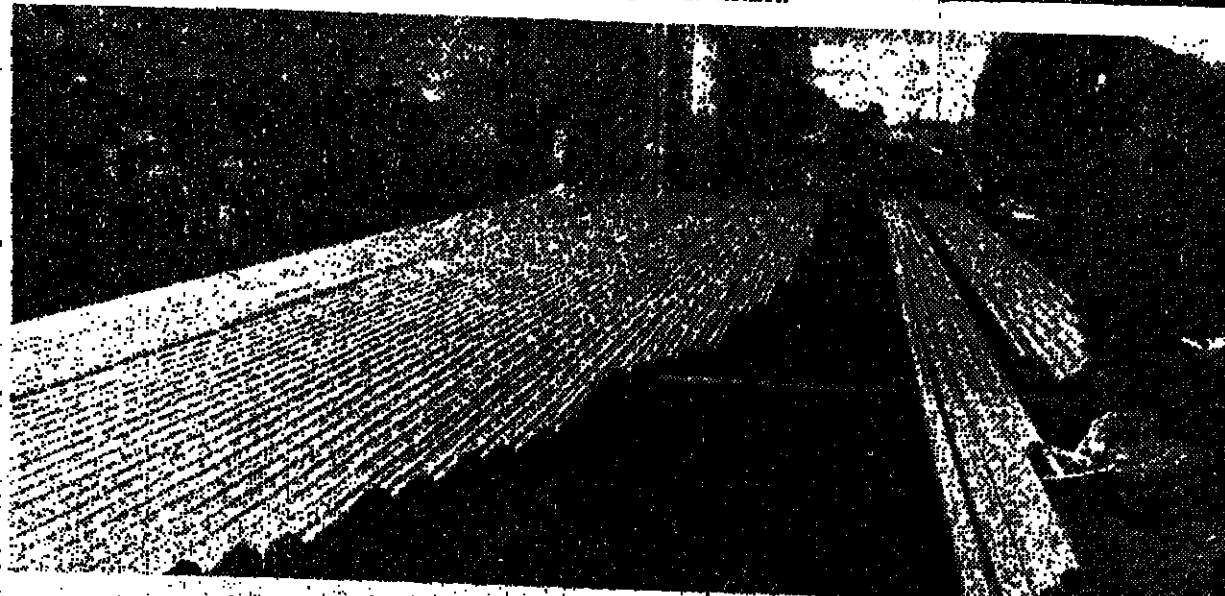
Last, the headquarters of the Commission of Inventiveness of the Romanian Academy, headed by two editors of the National Symposium of Inventiveness. In October it will host the proceedings of the third edition.

The 1980 Salon of Inventions with its 1,600 original technical solutions presented at the Palace of Culture in Iasi proved that the inventiveness movement has produced many values for the community life of the country.

MIRCEA ROSCA

## THE MINERS' TOWN

Motru, a city created 22 years ago, has undergone a powerful urban renovation, over the last two decades which have passed since the country's territorial-administrative reorganization, becoming one of the most important urban settlements in Gorj county. Presently, the locality has 6,300 apartments, a modern workers club, a hospital, an industrial high school, many commercial and service centres. Another 600 apartments are built this year for miners and the other people working at the spare parts plant, the kilnware enterprise and the other economic units functioning in that town.





# THE HARMONIOUS DEVELOPMENT OF ALL THE COUNTRY'S REGIONS THINKING FOR THE FUTURE AND FOR THE PEOPLE

Architect Florica Novoa, has made a name for herself as a specialist in town and county planning at the specialized department of the Baia Mare County Design Institute. Under her supervision, all the design and planning sketches of the seven towns and a few tens of communes in the county have been elaborated, making up a geographical

building drive has been under way. This tremendous social phenomenon is carried on following a rigorous internal logic. The localities cannot expand indefinitely because this would affect farming plots. The basic task of the town planner is, today, that of offering solutions and projects meant to limit building lots without closing the prospects for evolution of the

localities. To give you an example, I can tell you that our planning collective has recently completed the planning study of Baia Mare county which corroborated all county development questions, laying stress on the development of the localities network. Their number has been the object of a careful analysis, starting from the possibilities and economic resources



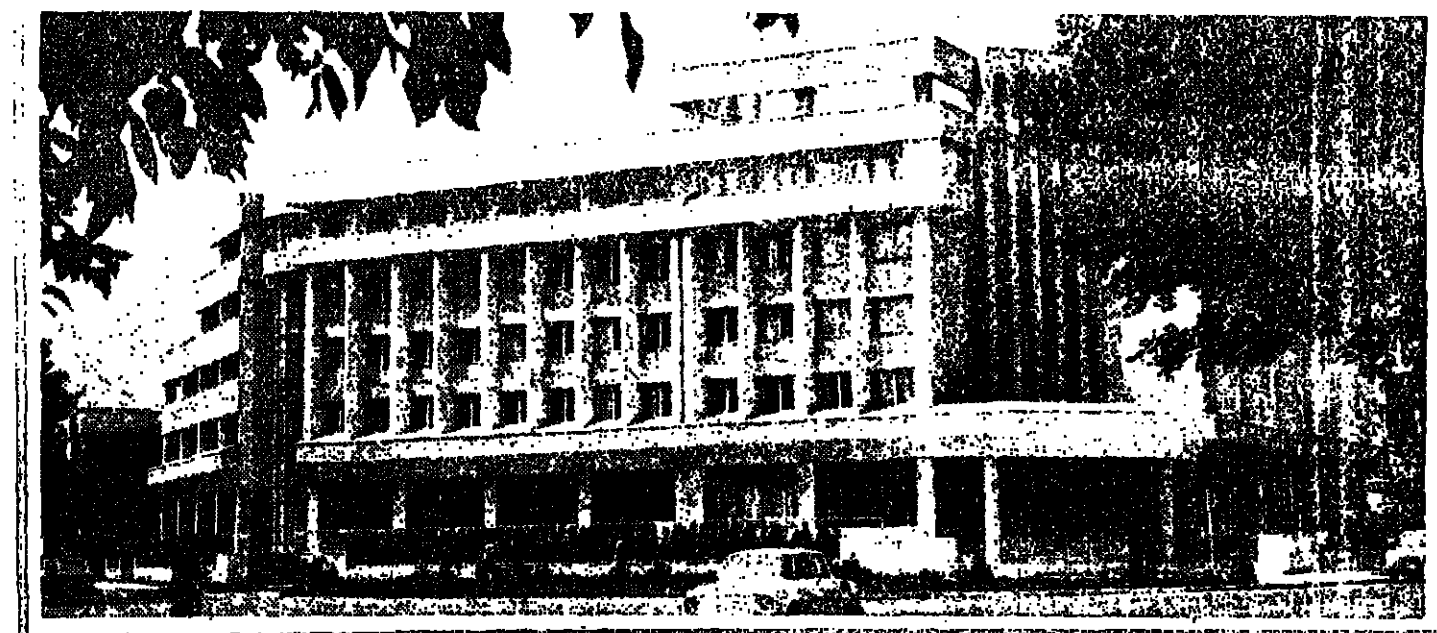
## THE HOLIDAY HOUSE

The Holiday House is a modern shopping centre recently inaugurated at Baia Mare, near a newly-built block of flats on the Progresului Street. It is also a remarkable architectural achievement. The Holiday House offers a wide range of sport items and ready-made clothes.



## BETTER COMFORT

A new block called Libertatea has recently enriched the housing dowry of Buhuși town. It is one of the most modern and beautiful ensembles built so far in the settlement lying on the banks of the Bistritza river. The housing units of the new ensemble comprise new constructive and architectural solutions ensuring them a substantial degree of comfort and functionality. Alongside the also recently completed ensembles the new social and public constructions make Buhuși a modern town.



"Isn't that too much?" "No. The formulation is rigorously exact. We consider that a big town — like Tirgu Jiu, with its over 25,000 inhabitants — must continuously reconsider its looks. The architects, the whole People's Council seriously consider the carrying out of this project. Now it is not enough to build, but it is necessary to adapt all constructions to the new situation determined by the settlement's continuous development. Each corner of the town is attentively studied, reconsidered. Both with a view to finding solutions for a more fluid and civilized traffic, for working lots and new playgrounds for children, for solving the problems raised by town entrances, by green areas, etc. It is a painstaking work because we want to cover all details. Certainly these things cannot be achieved in a week; not even in a year. It is a long term

another park next to the public garden, along the lake. Then a recreation park for children. To that will be added restorations of architectural monuments: Carlușari House in Turcinești district with a special architectural value and Brăileanu House, a beautiful 200-year-old house. The questions of locality planning are more complex than they seem. But the main preoccupation of the People's Council is the continuous growth of the inhabitants' degree of comfort and civilization. The new Tirgu Jiu town will be as its inhabitants wish it. We gathered all proposals made at citizen assemblies, we have bi-monthly meetings with administrators and chairmen of the 28 lodger associations, with the deputies, so that everything we carry out now and in future will begin with them, they will participate in our actions and they will give us the end word.

New architecture in Baia Mare municipality (right): modern apartment houses in the centre of the town (top); Moldova Hotel and a shopping area (left); Post George Bacovia's monument in Baia Mare (centre); new blocks of flats in Tirgu Jiu municipality (bottom left); two of the youngest Baia Mare inhabitants taking a walk (left).

and social area covering three per cent of Romania's area.

I met her at her work place, bent over the drawing board, preoccupied by the details of a town planning project.

"The town planner must analyse all the factors, phenomena, relationships, elements composing man's life in a certain geographical space and for as long as possible. Town planning involves the synthetic questions of the general development of a locality, of a system of localities, of a county, in connection with the National Programme of organization of the whole country's territory. This branch of architecture is today a major state concern. The June 1968 Plenary Meeting of the CC of the RCP elaborated clear norms and basic principles on the planning of the rural and urban environment. We have now reached a stage of very rapid growth of the Romanian towns (new urban localities are appearing, "growing within and beyond themselves", as historian Arnold Toynbee put it, when defining the town expansion phenomenon), a stage where the living conditions of the village are nearing those of the town. If "the in-urban" — the suburbs — are disappearing, "the in-rural" is a booming phenomenon. For the numerous worker population having appeared during the last 20 years, for all those born in these towns and villages, a powerful



## MODERN ARCHITECTURAL ENSEMBLE

The efforts of the builders in Buzău municipality are now focused on the completion of the new apartment houses on Unirii boulevard, the main line traversing the town.

On the second section of this boulevard, on which work started last year, blocks of flats with shopping and service units on their ground floors, a school with 16 classrooms, a hotel and a pedestrian underpass are now built. The street furnishings and the local materials used in decorating the facades of the blocks (Magura stone, ceramic bricks and Buzău glass) will make the thoroughfare look most original.

of each locality, from the contribution made within the county to its development prospects. In terms of the number of localities, Baia Mare county holds the fourth place in the country, in terms of global industrial production — the sixth place and in terms of total farming output — the 15th place. The annual industrial growth rate in the last quinquennium was of 7.8 per cent, therefore higher than the all-country average. This prompted us to draw certain conclusions: we decided to lessen the number of localities by grouping those villages which did not have adequate conditions for development and to exchange to better spaces having better possibilities and conditions in this respect.

"How did you do that? What solutions did you offer to manage for instance, for finalizing planning sketches and the basic of which the communities could approve or not the plans for new housing construction, economic activities, services and other areas?" "We have adopted a new formula, of zoning the localities, according to purposes, which has allowed us of delimiting new building lots within communities, thus giving back to agriculture certain farmland areas. The zoning operation took into consideration the envisaged number of inhabitants and the requirement to provide the population with all the comforts of civilized life, with working places for farmsteads, with work for socio-cultural facilities, for recreation, as well as the necessary roads and traffic arteries. In the beginning, many objections showed some hesitation, the roads and had to be reassured and convinced. If one is not careful enough, the even today, these light on any omis-

sion which can disrupt the entire balance. The planner's work is not easy, as he is responsible for the whole life of a human community for an interval which can stretch over several hundred years. A planner must always think for the future and for the people."

"Tell me about a rural settlement in this county where such a zoning plan with well determined functional areas will come to life?" "We submitted to the higher party leaders three plans for three standard communes as part of the study concerning the development of the rural environment in Baia Mare county, a study approved without objections and even with congratulations. I am talking about Homolea, Seuleu and Nicolae Bălcescu communes, representing three types of rural localities in the county which will become agricultural centres. Let us talk about Homolea for which I was appointed, by the Executive Committee of the County People's Council, in charge of the planning activity. The economic unit area will be the same as before. The living area will include individual one, two or three-storied houses preserving numerous architectural elements of the local traditional houses."

"What about the towns? Baia Mare county has many towns among which Onești, entirely built during the years of socialism. They will naturally develop, but with the same economy of building space and in the same conception extended over the rural environment. Baia Mare is included in the category of big towns and will grow up to 100,000 inhabitants, with all adequate facilities. The plan was thoroughly studied, the same as we did with all seven towns and even with commu-

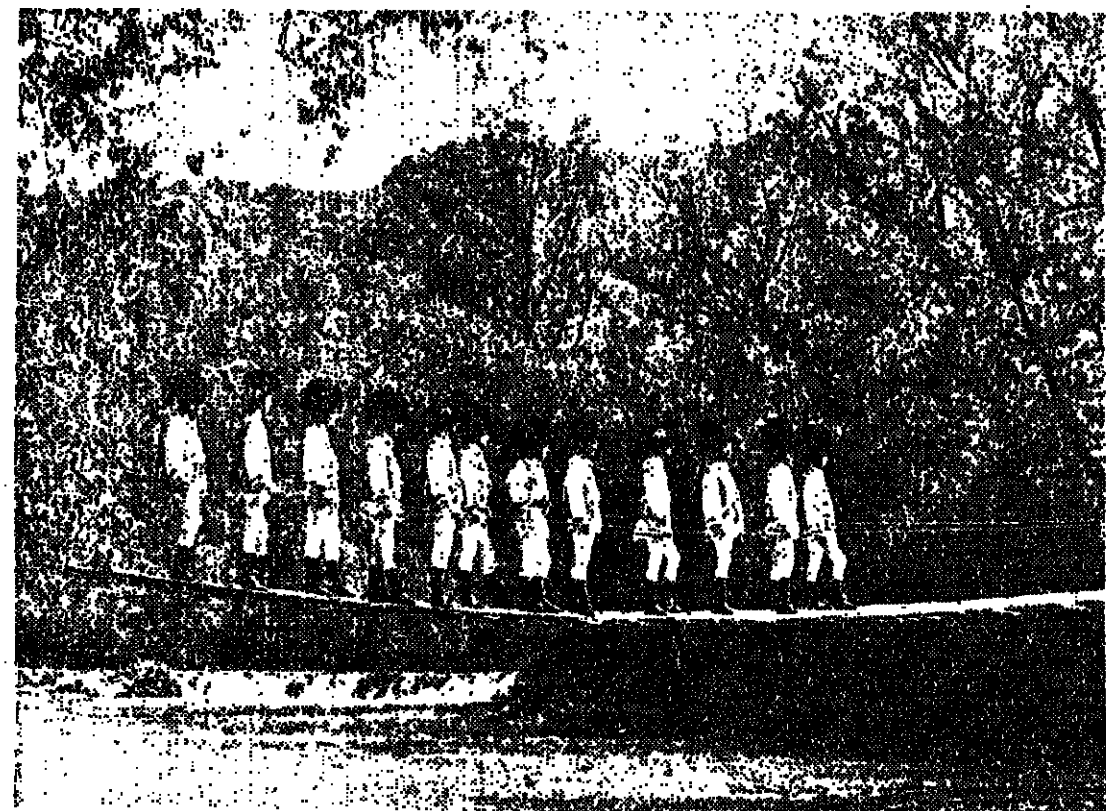


## THE SOUL OF A MELODY

Those who have not listened to an old folk dance tune from the Someș Mare Valley know less about the nature of the people in that part of the country. Someșana, as this tune is called, remains one of those folk melodies of striking originality and unique beauty. Its majestic chords have something of the solemnity of a hymn. It is almost paradoxical that this should be a dance tune. The pairs move slowly to its enveloping rhythm like a gently-flowing water, as if a brisker gesture might disturb the undulating, flawlessly beautiful flow of the song. I have dwelt on this dance because it is quintessential for a certain way of living in this world.

One of the representative folkloric ensembles of Bistrița-Năsăud county is Cununa de pe Someș, sponsored by the House of Culture in Bistrița, the county seat. Its enthusiastic promoters have master-

fully turned to advantage the rich musical and choreographic folklore of the region. The ensemble has made known throughout the world the beautiful folkloric treasures of the Someș, Bistrița, Său, Rodna, Birgale and Leu rivers. Its tours of Yugoslavia, France, Poland, Denmark, Sweden, Hungary, West Germany, Libya, Portugal and Greece were as many opportunities for displaying the diversity and charm of Romanian folklore. Awarded prizes at all the editions of the Song to Romania National Festival, the Cununa de pe Someș ensemble is just one of many examples offered by the effervescent cultural life of this Romanian region. An old dance is a testimony to the people's nature, and the region's participation in the cultural life of the country is a testimony to the accomplishments of the present.



## GENEROUS INTERFERENCES

We went to "George Cosbuc" High School in Năsăud on the eve of a celebration. The school's students were preparing to meet the class of 1983. They were rehearsing the "Ode of the High School." Young voices were singing a song whose age is equal to that of the Năsăud High School. On October 4, 1983 the first Romanian gymnasium was founded there.

"At times I feel overwhelmed by the traditions of the school where I learn. Sometimes I wonder, together with my classmates whether we are up to our forefathers' contest with sincerely student Teodora Oprișan of the 12 pedagogical grade. I noticed her feeling of responsibility toward the condition of student in a school where illustrious generations of young people have been educated. The building, erected at the end of the 19th century imposes through the sobriety of architectural style. How many youths from the Năsăud villages have crossed its threshold with the natural excitement of entering a place of enlightenment? The fact that among the former students of the high school are mentioned Romanian literature classics and the school's publications were somewhat of a "Virtus romana redolens" society had a special contribution to carrying out the union of December 1918, can only create a feeling of deep responsibility.

Teenager Monica Salvan's note book of poems reveals not only the sensitivity specific to the age but confirms a real talent acknowledged by the numerous prizes received at ex-

hibition contests, by the publication in several magazines. She told me she liked physics and mathematics, the school's specialty, but that poetry had become a passion. A notebook now, a volume several years later and maybe a name which should continue the thread of prestigious traditions. From a poem notebook we passed to a discussion on student Elena Bălaș's preoccupations of pedagogical research. "The Education of Creativity in High School" or "Means for Stimulating the Creative Spirit" are research papers arousing the interest of senior sessions where they were presented. The concrete examples from the high school's life offered the young researcher a

rich material. But the teaching staff have also creative preoccupations. An ingenious means of instruction invented by prof. Livia Pleș was proposed to be patented at the State Office for Inventions and Marks. "Redox previtor" will soon be a useful instrument for students in following redox reactions in all fields. Issue no. 8/1988 of the magazine put out by the Society of Mathematical Sciences was coordinated by the chair of mathematics of the Năsăud high school. From headmaster Gheorghe Pleș I learned a few praiseworthy concerns and achievements in the modernization of the educational process. The high school's five computers are used as teaching aids for all subject matters. They facilitated both the setting up of an information theory class in the high school and the devising of software to be used during classes. Donating a glorious past, the Năsăud high school fully proves its link with the present.



Interior of Livia Robreanu memorial house in the village of Someș Mare, today the name of the great Romanian writer (top); members of the well known folk ensemble "Cununa de pe Someș" of Bistrița wearing traditional folk costumes (left); Bistrița municipality (right).



## WINDOWS TOWARDS UNIVERSALITY

The short winter afternoon faded away beyond the hills of Priștop. This is the old name of the settlement now bearing the name of the prose writer who made it famous in the world — Livia Robreanu. Soon inside a mattress, the manuscript of his novel Ion was fortunately saved when his family took refuge during the first World War. The novel was saved and so was a whole world — that of the Romanian village. In June 1937, here, in his native commune, the Livia Robreanu memorial house was officially opened. The village people accurately reconstructed Robreanu's old house, where the writer spent a part of his youth. It was there that he met Ion, the prototype of the Transylvanian peasant. And the tragedy which shook the village world was the source of the masterpiece. Through Ion, Livia Robreanu became the father of the modern Romanian novel.

Speaking about the world-famed Robreanu is yet another book exhibition housed by a

modern annex building opened far away Japan to Latin America, Robreanu's masterpiece Ion. Pădurea spinzuratilor (The Forest of the Hanged), and Răscoală (The Uprising) opened wide gates towards the Romanian spiritual universe for readers all over the world. From the modest house reconstructed on the peasants' initiative, a real museum complex has been created providing visitors with rich information about the life and work of the great Romanian writer. The warden of the Livia Robreanu museum, teacher Mihai Martin, spoke about the recent acquisitions of the museum. A modern audio and projection hall happily lends itself to the museum's activities. From the films based on the writer's works to the most recent translation, visitors are informed about every new event in the destiny of Robreanu's work. Here, in a village nearby Năsăud, the window of a modest house have been opened towards universality.

## PERFORMING ON THE STAGE OF THE GREAT FESTIVAL

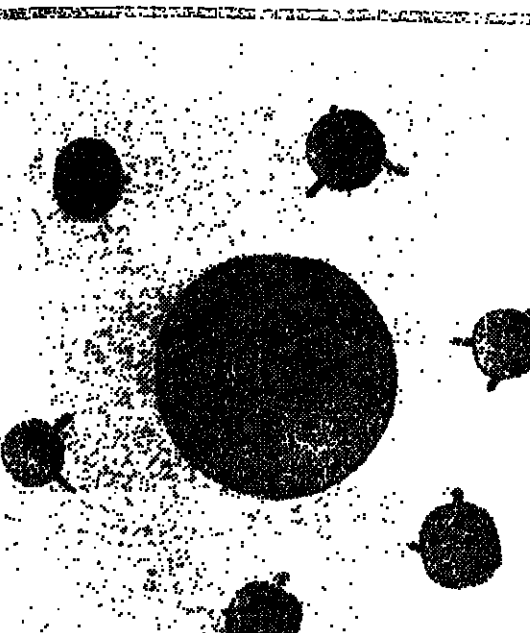
The sixth edition of the Song to Romania National Festival was attended by 3,046 artistic ensembles from Bistrița-Năsăud county, including almost 55,000 interpreters, 692 creation circles and clubs and 708 individual creators. The valuable participation of the county's interpreters and creators materialized into 878 awards in the national-wide stage, 31 diplomas for

outstanding establishments and 10 diplomas for instructors. Such remarkable results are explained by the fact that each establishment has turned its creative activity into an almost task. The rich agenda of cultural and artistic events has helped increase the potential of creation and performance.

MARILENA TUTILA

## FOLK ART

Perennial values of Romanian folk art, patrimony pieces illustrating the beauty, richness and variety of the creations in the traditional ethnographic areas of Romania are displayed in a comprehensive exhibition at the Dădău Hall in Romania's Capital. Pieces of furniture, carpets and fabrics, symbolic architectural elements from the buildings of the Village and Folk Art Museum in Bucharest suggestively re-make the living space of the Romanian village since ancient times to the present day, highlighting the artistic qualities of the exhibits. Folk creation, as a source of inspiration for the fine arts is the idea lying at the basis of another part of the exhibition which gathers painting, sculpture and tapestry works.



## ACTORS' "RECITALS"

On the stage of the Very Little Theatre in Bucharest the idea of a multi-purpose creation laboratory is still on, an idea from which actors and spectators profit in the first place. The new premises of the theatre, called "Good Night, Mother," a two-character play having a rich international record, also enhanced by the prizes awarded to writer Murda-

Nurman. The text offers generous parts to the two actors and through this it found its natural place in the repertoire of the creation laboratory of the theatre. Dealing with a limited situation and its inherent melodramatic implications, masterfully written, the text is tempting for the actresses, as it involves two characters in a three dramatic confrontation: a mother and a daughter — the latter on the verge of suicide (which she eventually commits). The text stands out by the ease it chose to discuss.

In this difficult play, the experienced stage director Dinu Cernescu worked with modest means and firmness in thoroughly shaping the relationships between characters; he discarded decorative effects, carefully following the inner drama. The elements of the existence of the two women, framed by a realistic stage painting, minutely designed by Virgil Lăscu, are not only the rhythm and suspense, it impresses and fascinates the audience. The two actresses play subtly and effectively, economically using their means of expression, naturally revealing the torments marking their destinies. Thus, Good Night, Mother is a highly professional recital offered by Olga Tudorache and Liana Ceterchi. Although the former actress' talent is well known, Olga Tudorache surprises very time by her creative force in the most variegated and difficult registers. In this play she achieves a new feat, enriching the character with new hints to its biography, coloring and outlining not only her spoken lines but also the subject with the intelligence of great actors. It was expected that Olga Tudorache should make another creation in this show, but the surprise was Liana Ceterchi. Blago director Dinu Cernescu and Olga Tudorache — each in their own professional domain — are the ones having turned to good account the so far hidden resources of this actress. Liana Ceterchi assimilated in detail the difficult part of the sick and self-murdering girl, blurring the pathological element and drawing the latter life of the lonely woman, with its social and sentimental implications, the woman unfulfilled as an intimate and social being. Liana Ceterchi's extraordinary, in-breathing and serious reading of the apollonian character of the actress. Thus she stands out as a solitary figure of a real dramatic force, meeting an intelligently built part.

TRAIAN ROMAN

## ROMANIAN CULTURE ABROAD

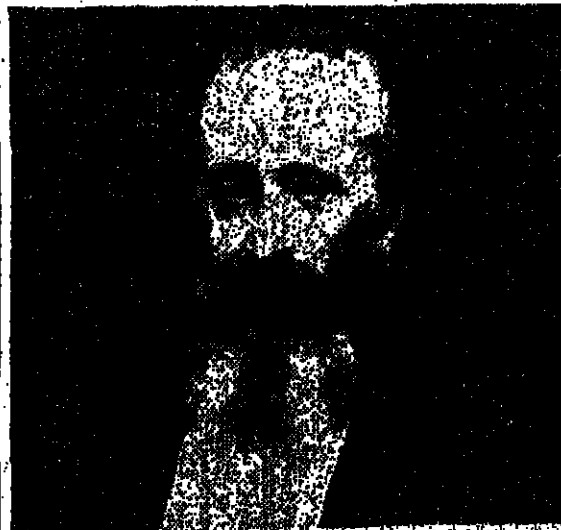
● COLOMBIA. In Colombia has recently appeared (Planeta Publishing House, Bogotá, 1987) a volume of essays, confessions and interviews, referring to the prestigious writer German Arculeanu, well known to the Romanian readers by two of his best sellers: Biography of the Corb and the Eldorado Knight. Having a good knowledge of Romania, German Arculeanu also wrote excellent reportages in Haiti in Romania (Bucharest, 1973). In the present volume (titled Arculeanu de la cercuri cetero-cetero (Life-Size Arculeanu)), Romanian professor Paul Alexandru Georgescu deals with German Arculeanu and the multi-faceted knowledge of America.

● BELGIUM. Within the traditional cultural-artistic European festival (Europe + Opus), which takes place every two years in Belgium, an ample event and an international exhibition on the subject of plastic and visual poetry occurred in Centre-Nature (Boisranger). Among the participants — 70 poets, critics and artists from 15 countries — there were a lot of prestigious names. From Romania, works signed by Andrei Obsteanu, Dan Perjovschi and Adrian Rogoz were presented. The authors' presentations and their works appeared in the illustrated catalogues, edited on the occasion of this international literary-artistic event.

● BULGARIA. Number 12/1987 of the Syntagma literary and art publication in Bulgaria presented its readers two Romanian poets — Toma George Marinov and Angel Dumbrăveanu in the Poetic Universe column. Translations into Bulgarian were signed by poet Oguzan Sjambolev.

## LITERARY EVENT

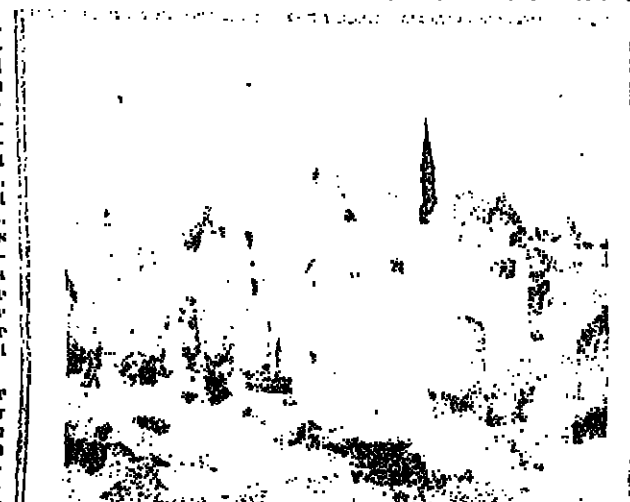
● The House of Culture in Clujina played host to a literary event marking 150 years since the birth of the Romanian actor and writer Bogdan Petriceicu Hașdeu. On the occasion, several specialists spoke about the encyclopaedist's activity, about his place in the Romanian culture. Also, two exhibitions were staged: "Hașdeu Books", at the House of Culture, and "Hașdeu and his Contemporaries", at the Nicolae Grigorescu Museum in that town. The photo above features Bogdan Petriceicu Hașdeu's portrait, made by G. D. Nitra (detail).



## THE NOBLE VIBRATION

As a resident conductor of the Romanian Radio-Symphony Orchestra, Cristian Brancusi has followed a steadily ascending line in the ascension of his artistic personality. Perhaps the audience can feel this ascending even better than he does, as a sign of the vitality of his talent and of the accumulation of professional experience. And now, after several concert seasons, the previous appreciations are perfected in the run, adding new elements to the existing data. At present, we no longer understand Cristian Brancusi's ways of solving a concert programme when faced with the great repertoire. Now he processes the means to fulfil an interpretative endeavour of another kind — which is characteristic of his artistic maturity. Namely, a personal approach to the works performed, his own solutions in matters of style and technique, a stable relation of mutual valuation with the orchestra ensemble. With these parameters, his preexisting qualities, the efficiency of his conducting to which his own contributions as a composer are added, he is able to offer solid musical versions, apt to meet the exigencies of music fans. Within the present season

of the Radio-Symphony, the programme proposed by Cristian Brancusi offers a very interesting stylistic panorama. From purely by the Viennese classics (the delightful Symphony No. 93 in D major by Joseph Haydn), to generous romantic moments (Chopin's First Piano Concerto, with Pavlina Dedovska from Bulgaria as a soloist, the scale of light and shade reveals a skilful handling of well-differentiated stylistic means. In this context, the new performance of the great symphony by Wilhelm Furtwängler, devoted to Beethoven's memory, stands out as an authentic interpretative effort. The reading of the score revealed the complex counselling between counterpoint and tradition, being an occasion for a noteworthy display. It was here that Cristian Brancusi, more than in the other moments of the symphony concert of the Radio-Symphony Orchestra, certified his artistic maturity, belonging to the best of his collaboration and conveying through music a human message of high and noble vibration. This is the standard of a generation that has shaped up as a composer and conductor during these years which Cristian Brancusi worthily represents. G. CONSTANTINESCU



## CLARITY AND VIGOUR

Constantin Gheorghiu's art follows two coordinates: the clarity of the message and the observance of the classical tradition of the Romanian school of painting. His landscapes breathe freshness and originality through the vigour of colours, through the imperceptible transition from the figurative to the non-figurative space. Thus, his watercolours (a lake, a river or the sea) convey the feeling of aesthetic restlessness which animates the artist in his creative effort. The still-lives (fishes, pheasants) follow the same lines, the painter explores the revealing details. His portraits and nudes stand out by the thick coat of paint and the force of the lines. The exhibition opened at the Simona Gallerie in Bucharest reveals a mature painter, master of his own artistic means. IOAN PRIGOREANU

## NEW BOOKS

● Lucian Blaga prints contemporary — Lucian Blaga Among (His Contemporaries) by Cristian, Univers Publishing House. This massive volume, subtitled Commented Dialogues, is an attempt at writing an objective literary biography of the great poet and philosopher. Lucian Blaga (1895-1961). The book includes interviews with personalities and persons close to the author of the "Great Passenger", considerations presenting now aspects of Lucian Blaga's complex cultural and moral portrait. Among I. Oprisan's interludes there are Vasile Bălan, Șerban Cioculescu, Ștefan Augustin Doinaș, Radu Bourgeois, Doril Blaga, Cornele Bălan, Tudor Clăruș, Ovidiu Drimba, Alexandru Dima, Ovidiu Eșanu, Dumitru Mitea, Teodor Miliș, Edgar Papu, Ștefan Văduva, Teodoranu, George Șarapa, Eugen Tudor, Grigore Popa, A. Băciș, time

the biographic detail completes the image of a great writer and at the same time of a given time. ● Axiologie și Istorie — Axiology and History, published by C. I. Gullian, Publishing House of the Academy. The main theme of C. I. Gullian's latest book Axiology and History is a confrontation between historical consciousness and historical experience, between history and value. The volume is devoted to thinkers and doctrines belonging to a large geographic and historical space: Zoroaster, Buddha, Confucius, J. J. Rousseau, Goethe, Kant and Hegel. Mentioning in the preface that this book is the first volume in a series of two, the author shows he will continue the debate of the troubling problematics approached as it is represented in the work of the great thinkers of old-19th century and the 20th century.



see them together, and so someone can easily take one for the other, as in the story that we recounted in the beginning. Nurse Esterlina Foldas only, who has been working here for many years, knows exactly to which of them she is speaking. "Anyway," she assured us, "the twins are identical even in what regards their true doctor's vocation."

This opinion is acknowledged by the frequent confusions. Lucky ones, of course.

**VIONICA CIOBBAGIU ■**

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